RESTORATION UPDATE

A newsletter of the Salton Sea Restoration Project

SALTON SEA AUTHORITY

September 2003

Salton Sea Authority Presses Forward on Restoration as QSA Details Unfold

While the details of the Quantification Settlement Agreement (QSA) and associated water transfers are worked out, the Salton Sea Authority plans to move forward with its restoration efforts. Legislation to facilitate the transfer and restore the Sea is being considered by the state legislature. One piece of that legislation calls for the State to prepare a Salton Sea feasibility study by December of 2006.

The Salton Sea has been studied for more than 30 years and local residents fear that research will once again take the place of action. "It's time to move forward, build on the years of research already under our belt and implement a restoration plan," says Imperial County Supervisor and Salton Sea Authority Vice President, Gary Wyatt.

The Salton Sea Authority is currently researching the feasibility of building an earthen dike in the lake which will reduce the lake's need for current inflows, reduce the salinity levels, and ensure the lake continues to serve as an essential habitat for millions of birds as well as generating some of the nation's most attractive recreational fishing.

Representatives of Southern California's four largest water agencies agreed on September 5th to implement the long anticipated QSA after years of disagreements and failed talks. If and when it's approved by the agencies' boards and implemented, the agreement will facilitate the yearly transfer of 65 million gallons of water from the Imperial Irrigation District to the San Diego County Water Authority, and will provide financial benefits to Imperial County farmers to improve water conservation efforts. The agreement will also allow California to regain Colorado River water "surplus," for 15 years - water which was initially revoked by the U.S. Interior Department as a result of the water districts failure to meet a December 31, 2002 deadline to enact the accord.

The water transfers will significantly reduce inflows to the Sea and have the potential to create environmental and social problems. The latest QSA deal is the first to provide a significant financial link between the transfers of water and the Salton Sea restoration by establishing a Salton Sea fund that could generate $300 million for restoration. The agreement is the first major financial step towards the restoration of a vital body of water that is on the brink of an ecological disaster.

The Salton Sea has experienced increased salinity since its inception in 1905. This landlocked lake only loses water through evaporation, leaving behind hard minerals, particularly salts. Rising salinity levels threaten fish that support the migratory birds that make the Salton Sea a primary stopover along the Pacific Flyway.

"From the everglades of Florida to the Mia Po marshes of Hong Kong to the Pantanal of Brazil, there are few places on the globe that support as many birds as the Salton Sea." - Salton Sea Atlas

Salton Sea's Lakebed to Undergo Extensive Drilling

Salton Sea's ancient lakebed will be giving up some of its secrets early this fall as the Salton Sea Authority commences the most extensive geotechnical investigation ever done in the lake.

Interest is focused on the feasibility of constructing earthen structures that would convert the Sea into a smaller, environmentally balanced body of water that would be able to adapt to reduced inflows.

In recent months, the Salton Sea has been recognized as a critical component of any water conservation measures in California and an environmental linchpin in implementing the Quantification Settlement Agreement (QSA).

Recently, several innovative concepts have been developed that include reducing the size of the lake and using desalination to stem rising salinity that would result from reduced inflows. The proposed restoration concepts would even provide enough water for planned agriculture-to-urban water transfers.

"Instead of being the environmental stumbling block, a new 'Salton Lake' could actually facilitate getting water to the metropolitan plain and be the win-win that is necessary to unlock the water transfer stalemate," said Authority Executive Director Tom Kirk. "In order to proceed, though, we need to determine whether the lakebed can support the infrastructure that is needed," he said.

Very little information exists on sub-bottom conditions below the Salton Sea, California's largest lake. The Bureau of Reclamation sampled some borings during a restoration study in 1974. These borings, though, were limited to the southern part of the lake, near the mouths of the New and Alamo Rivers. Cal Energy, a major geo-thermal energy producer at the southern shore of the sea, has also drawn core samples in the area in connection with its onshore geothermal fields.

Scientists will analyze core samples, some from as deep as 200 feet below the lakebed.

But none of these investigations were done in association with research aimed at determining a preferred restoration plan.

Recently, the Bureau of Reclamation developed a cooperative agreement with the Salton Sea Authority (SSA) to perform these geotechnical investigations. In turn, the Salton Sea Authority contracted with Tetra Tech and URS Corporation, environmental and engineering firms, to conduct the investigation. Core samples will be taken from more than 20 sites around the lake drawn at depths from 30 to 200 feet below the lakebed. Work will begin in early September and will last for about six weeks. The study plan was developed by the consulting team with extensive input by Federal Bureau of Reclamation and State Department of Water Resources experts.

It is anticipated that the lakebed has layers of soft sediments that have flowed in over the past 100 years. However, it is also anticipated that some unconsolidated materials may underlie the Sea from prior inundations and salt deposits.

The Salton Sea is the most recent lake to occupy the Salton Trough. Much of the sediment at the bottom of the sea is from the Grand Canyon. Throughout history, as the uncontrolled Colorado River carved the Grand Canyon, silt would buildup and block its present channel to the Gulf of California. The river would divert from its present "man-made" course and flow into the Salton Sink. The resulting lake was five times larger than the current Salton Sea.

The lake would often get so large that it would actually overflow into the Sea of Cortez.

When the silt from the river cut off the flow to the north, the Salton Trough would lose its in-flow of water and the inland lake would slowly evaporate. At that time, there were 20 times the amount of wetlands habitat in California, and shifting wildlife use patterns along the flyway were readily accommodated. Today the birds have few other places to go when habitat like the Sea disappears.

And with more than 500,000 year-round residents and more than one million tourist season visitors in the Coachella and Imperial Valleys, further degradation of the Salton Sea has implications for the health and economy of the region as concerns about air quality problems from a receding lake mount.

It seems restoration may be as important for the many year-round and "migratory" people as it is for the birds.

In the mid-1900's, the Salton Sea hosted numerous high speed boat races that drew thousands of spectators.

MEETINGS SCHEDULE

Technical Advisory Committee Meeting
September 11
10:30am
Salton City

Board of Directors Meeting
September 25

SALTON SEA AUTHORITY

Plaza La Quinta
78-401 Highway 111, Suite T
La Quinta, CA 92253
www.saltonsea.ca.gov

West Nile Virus Detected Near the Salton Sea

Detection of the West Nile Virus in mosquitoes collected near the Salton Sea has added an additional design element to a potential Salton Sea Restoration Plan that would reduce the size of the lake and create new habitats for birds.

Concern has been raised that some of the proposals being reviewed for restoration of the Sea may create more freshwater habitats, enhancing mosquito populations, and potentially leading to increased incidence of the virus.

"This may be true to some extent, but considering the extensive amount of mosquito habitat currently available in the 3000 miles of backwaters, canals, and drains around the Sea, the incremental impact would likely be minimal," said Rey Stendell of the Salton Sea Science Office.

The degree of increased risk, however, varies among proposals depending on how much freshwater habitat is created, he added.

"The Salton Lake plan was designed to minimize fresh and brackish water habitat and maximize salt water habitat for ecological and recreational reasons," Stendell said. "The increased risk of West Nile should be minimal and will be considered in the design of any project."

"Regardless of final alternatives proposed, should the project be authorized and funded by Congress and/or the State of California, the 'mosquito/virus issue' – like all other issues – will go through a process of full public disclosure during future public scoping meetings, as required by NEPA/CEQA," says Mike Walker, Salton Sea Program Manager for the U.S. Bureau of Reclamation. "These meetings will provide valuable opportunities for the public to provide innovative input, ideas, and comment."

While the West Nile Virus is a serious issue that will require additional effort in developing restoration alternatives, it merely adds just another detail to be addressed in the scientific and technical blueprint for success. As the scientific and technical blueprints change, it is important that the public not only stays informed, but also involved.

Walker said he is optimistic that with public input, support, and involvement, a reasonable resolution to restoring the Salton Sea, regardless of issues, will be implemented.

In August the State Health Director reported the first evidence of West Nile Virus in California from mosquitoes found at the southern end of the Sea. Evidence of infection was also detected in chickens near Niland. No human cases have been reported.

The presence of this disease in and around the Salton Sea has important implications for migratory bird populations. The Sea is an important corridor for migrating birds of the western United States. More than 400 species have been recorded from the area and many of those are migratory.

Comments concerning the West Nile Virus or other issues concerning the Salton Sea Restoration effort can be made by contacting the Salton Sea Authority, Science Office (760) 777-1564 or or visiting the Salton Sea Authority's and Bureau of Reclamation's web sites: www.saltonsea.ca.gov and www.usbr.gov/lc/region/saltnsea/ssrest.html